

Lab No. 4: Study of ETHERNET Frames

Exercise 1

After configuring the ETHREAL software on each machine in the local network (as explained in the theoretical section), on each machine x with an IP address IPx, execute the following MS-DOS command: **ping IPy** where IPy is the IP address of another machine y. Then, stop the capture.

1. Analyze the general information of the ETHERNET frame (information found in the frame line within section B of the ETHREAL window).
2. Retrieve different packet details (as explained in the theoretical section) from the ping command results, including:
 - o Time, source, destination, and protocol information from section A of the ETHREAL window.
 - o Various headers displayed in section B for each protocol captured.
3. In this lab, we focus on the network access layer header in the TCP/IP model, which corresponds to the physical and data link layers in the OSI model (ETHERNET header, section B). Fill in the following table for each protocol displayed.

Source address	
Destination address	
Protocol Type	

Exercise 2

In this exercise, we will determine the protocol that enables access to shared resources from a machine on the local network.

1. Launch ETHREAL, then access shared resources from another machine on the LAN.
 - o For example, click Start > Run, type: \\192.168.0.1
 - o Then, stop the capture.
2. Identify the protocol responsible for this activity.
3. Complete the previous table.
4. Identify any differences (if applicable) between the resulting table and the previous ones.